

CLAIMS

1. A computer program product, tangibly embodied in an information carrier, for representing hierarchical list data, the computer program product being operable to cause data processing apparatus to perform operations comprising:

5 receiving a first list comprising an element A1 and an element A2, the element A2 comprising a first nested list comprising an element N1 and an element N2;

 receiving a second list comprising an element B1 and an element B2, the element B2 comprising a second nested list comprising an element M1 and an element M2;

 storing the elements A1 and B1 in a first array; and

10 storing the elements A2 and B2 in a second array, the second array comprising a first sub-array to store the elements N1 and M1, and a second sub-array to store the N2 and M2.

2. The product of claim 1, wherein storing the elements A1 and B1 in a first array and storing the elements A2 and B2 in a second array each includes:

15 using a tree data structure to parse the first and second lists.

3. The product of claim 2, wherein the tree data structure includes:

 a first node representing element A1;

 a second node representing element A2; and

20 a third node representing the element N1, the third node being arranged as a child of the second node.

4. The product of claim 1, wherein the operations further comprise:

 transferring the first and second arrays between a client and a server.

5. A computer program product, tangibly embodied in an information carrier, for representing hierarchical list data, the computer program product being operable to cause data processing apparatus to perform operations comprising:

receiving a first array that contains elements A1 and B1;

5 receiving a second array that contains elements A2 and B2, the second array comprising a first sub-array that contains elements N1 and M1, and a second sub-array that contains elements N2 and M2; and

generating a first and second list based on the first and second arrays, the first list comprising the element A1 and the element A2, the element A2 comprising a first nested
10 list comprising the element N1 and the element N2; the second list comprising the element B1 and the element B2, the element B2 comprising a second nested list comprising the element M1 and the element M2.

6. The product of claim 5, wherein generating a first and second list includes:
using a tree data structure to parse the first and second arrays.

15 7. The product of claim 6, wherein the tree data structure includes:

a first node representing element A1;

a second node representing element A2; and

a third node representing the element N1, the third node being arranged as a child of the second node.

8. Apparatus comprising:

means for receiving a first list comprising an element A1 and an element A2, the element A2 comprising a first nested list comprising an element N1 and an element N2;

means for receiving a second list comprising an element B1 and an element B2,
5 the element B2 comprising a second nested list comprising an element M1 and an element M2;

means for storing the elements A1 and B1 in a first array; and

means for storing the elements A2 and B2 in a second array, the second array comprising a first sub-array to store the elements N1 and M1, and a second sub-array to
10 store the N2 and M2.

9. The apparatus of claim 8, wherein the means for storing the elements A1 and B1 in a first array and the means for storing the elements A2 and B2 in a second array each includes:

means for using a tree data structure to parse the first and second lists.

10. The apparatus of claim 9, wherein the tree data structure includes:

a first node representing element A1;

a second node representing element A2; and

a third node representing the element N1, the third node being arranged as a child of the second node.

11. The apparatus of claim 8, wherein the means for storing the elements A1 and B1 in a first array and the means for storing the elements A2 and B2 in a second array each includes:

means for using a tree data structure to parse the first and second lists.

12. The apparatus of claim 8, further comprising:

means for transferring the first and second arrays between a client and a server.

13. Apparatus comprising:

means for receiving a first array that contains elements A1 and B1;

means for receiving a second array that contains elements A2 and B2, the second array comprising a first sub-array that contains elements N1 and M1, and a second sub-
5 array that contains elements N2 and M2; and

means for generating a first and second list based on the first and second arrays, the first list comprising the element A1 and the element A2, the element A2 comprising a first nested list comprising the element N1 and the element N2; the second list comprising the element B1 and the element B2, the element B2 comprising a second
10 nested list comprising the element M1 and the element M2.

14. The apparatus of claim 13, wherein the means for generating a first and second list includes:

means for using a tree data structure to parse the first and second arrays.

15. The apparatus of claim 13, wherein the tree data structure includes:

15 a first node representing element A1;

a second node representing element A2; and

a third node representing the element N1, the third node being arranged as a child of the second node.